



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/821,434	03/28/2001	Koji Fujiyama	4970/0J035	1759

7590 08/19/2003

DARBY & DARBY  
PROFESSIONAL CORPORATION  
805 THIRD AVENUE  
NEW YORK, NY 10022-7513

EXAMINER

PATEL, GAUTAM

ART UNIT	PAPER NUMBER
----------	--------------

2655

DATE MAILED: 08/19/2003

5

Please find below and/or attached an Office communication concerning this application or proceeding.

2

Office Action Summary

Application No.

09/821,434

Applicant(s)

FUJIYAMA, KOJI

Examiner

Gautam R. Patel

Art Unit

2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2, 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

1. Claims 1-4 are pending for the examination.

### *Specification*

2. The disclosure is objected for following reasons.

The title of the invention is neither precise nor descriptive. A new title is required which should include, using twenty words or fewer, claimed features that differentiate the invention from the Prior Art. It is recommended that the title should reflect the gist of or the improvement of the present invention.

Correction is required.

### *Claim Rejections - 35 U.S.C. § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 3 are rejected under 35 U.S.C. § 102(b) as being anticipated by Yamada et al., US. patent 5,331,615 (hereafter Yamada).

As to claim 1, Yamada discloses the invention as claimed [see Figs. 2-14; especially 2] including Controlling means and transfer function holding means, comprising:

Controlling means [fig. 2, unit 37] for performing seek control for moving said optical pickup to a target track on the optical disc and focus servo control of said optical pickup according to a detected focus error signal and a transfer function; and

[a] transfer function holding means [fig. 2, unit 37] for holding a first transfer function for executing focus servo when said controlling means does not perform said seek control in ~~active~~ <sup>active</sup>, and a second transfer function for executing focus servo when said controlling means performs said seek control. Col. 6, line 47 to col. 5]

NOTE: computers inherently have memory to hold commands and data.

4. As to claim 4, it is rejected for similar reasons set forth in the rejection of claim 1, supra. As to the added limitation Yamada discloses:  
an optical pickup for writing data on an optical disc and/or reading data from the optical disc [col. 5, line 65 to col. 6, line 19 and col. 1, lines 13-41].

***Claim Rejections - 35 U.S.C. § 103***

5. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2 and 4 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamada as applied to claims 1 and 3 above and in view of Janssen US. patent 4,037,252 (hereafter Janssen).

As to claim 2, Yamada discloses all of the above elements, including the transfer function holding means. Yamada does not specifically disclose that the second transfer function has a smaller gain than the first transfer function and equivalent phase margin for similar stability of first function.

However, it is well known in the art that transfer function can be adjusted depending upon the system requirement and reducing gain always provides a better stability in the phase margin. Also Janssen clearly discloses:

Art Unit: 2655

the second transfer function has a smaller gain than the said first transfer function and a phase margin capable of providing substantially same stability as that obtained by said first transfer function [col. 7, line 54 to col. 8, line 11] . Both Yamada and Janssen are interested in providing stable tracking in a disc shaped recording carrier and improving servo system under different conditions.

One of ordinary skill in the art at the time of invention would have realized that external disturbances routinely plague the systems and therefore the scanning point need to be set at a stable setting during external disturbances when they happen. Therefore, it would have been obvious to have provided a transfer function stability criteria of having gain of second transfer function smaller than the first one in the system of Yamada as taught by Janssen because one would be motivated to reduce noise in the system of Yamada by providing a damped oscillation during occurrence of an external disturbance and also transfer function can be varied during this periods [col. 8, lines 1-11; Janssen].

NOTE: Stable and unstable range are equivalent of performing and not performing seek control.

7. As to claim 4, it is rejected for the same reasons set forth in the rejection of claim 2, supra.

***Other prior art cited***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1. Tsai et al. (US. patent 5,867,456) "Intelligent optical disk drive control method".
2. Ishioka et al. (US. patent 5,617,388) "Disc recording/reproducing ..".
3. Kadlec (US. patent 5,638,230) "Digital servo control system for use in disk drives".
  - a. Takaishi (US. patent 6,088,187) "**Control system for two-stage actuator**".

Art Unit: 2655

4. Sri-Jayntha et al. (US. patent 6,574,065) "Method and apparatus for adaptive resonance mode cancellation servo in a rotating storage system".

5. LaBudde (US. patent 4,614,986) "Magnetic servo with improved tracking system".

**Contact information**

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gautam R. Patel whose telephone number is (703) 308-7940. The examiner can normally be reached on Monday through Thursday from 7:30 to 6.

The appropriate fax number for the organization (Group 2650) where this application or proceeding is assigned is (703) 872-9314.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Doris To can be reached on (703) 305-4827

Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 305-4700 or the group Customer Service section whose telephone number is (703) 306-0377.



Gautam R. Patel  
Patent Examiner  
Group Art Unit 2655

August 17, 2003